

ATTENUATED EMBEDDED PHASE SHIFT PHOTOMASK BLANKS

ABSTRACT

An attenuating embedded phase shift photomask blank that produces a phase shift of the transmitted light is formed with an optically translucent film made of metal, silicon, 5 nitrogen and oxygen. An etch stop layer is added to improve the etch selectivity of the phase shifting layer. A wide range of optical transmission (0.001 % up to 15 % at 157 nm) is obtained by this process.